

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

Claims 1-16 (Cancelled).

17. (New) A base station apparatus, which assigns a shared channel shared by a plurality of communication terminal apparatuses including a first communication terminal apparatus, the base station apparatus comprising:

an estimator that estimates a direction of arrival of a signal transmitted from each of the plurality of communication terminal apparatuses;

a determiner that determines, based on a difference between a direction of arrival of a signal from the first communication terminal apparatus and a direction of arrival of a signal from each communication terminal apparatus other than the first communication terminal apparatus of the plurality of communication terminal apparatuses, a communication terminal apparatus to which the shared channel is assigned after the first communication terminal apparatus, to determine an order of communication terminal apparatuses to which the shared channel is assigned; and

a transmitter that forms a directivity in the estimated direction of arrival in accordance with the determined order, and transmits a shared channel signal to each of the plurality of communication terminal apparatuses.

18. (New) The base station apparatus according to claim 17 wherein said determiner determines a communication terminal apparatus of a direction of arrival having a smallest difference from a direction of arrival of a signal transmitted from the first communication terminal apparatus, as a communication terminal apparatus to which the shared channel is assigned next after the first communication terminal apparatus.

19. (New) A base station apparatus, which assigns a shared channel shared by a plurality of communication terminal apparatuses including a first communication terminal apparatus, the base station apparatus comprising:

an estimator that estimates a direction of arrival of a signal transmitted from each of the plurality of communication terminal apparatuses;

a determiner that determines, in accordance with a value calculated from a combination of a priority assigned in association with downlink channel quality and a value indicating

the estimated direction of arrival, a communication terminal apparatus to which the shared channel is assigned after the first communication terminal apparatus, to determine an order of communication terminal apparatuses to which the shared channel is assigned; and

a transmitter that forms a directivity in the estimated direction of arrival in accordance with the determined order, and transmits a shared channel signal to each of the plurality of communication terminal apparatuses.

20. (New) A base station apparatus comprising:

an estimator that estimates a direction of arrival of a signal transmitted from each of a plurality of communication terminal apparatuses;

a determiner that determines an order of communication terminal apparatuses to which a shared channel is assigned, the shared channel is shared by the plurality of communication terminal apparatuses; and

a transmitter that forms a directivity in a direction of arrival estimated for a signal transmitted from a first communication terminal apparatus of the plurality of communication terminal apparatuses, and transmits a dummy signal whose transmission power is increased gradually to a

predetermined transmission power value of a shared channel signal, prior to a start of transmission of the shared channel signal to the first communication terminal apparatus in accordance with the determined order.

21. (New) A base station apparatus comprising:

an estimator that estimates a direction of arrival of a signal transmitted from each of a plurality of communication terminal apparatuses;

a determiner that determines an order of communication terminal apparatuses to which a shared channel is assigned, the shared channel is shared by the plurality of communication terminal apparatuses;

a transmitter that forms a directivity in a direction of arrival estimated for a signal transmitted from a first communication terminal apparatus of the plurality of communication terminal apparatuses, and transmits a shared channel signal to the first communication terminal apparatus; and

a transmission power controller that increases a transmission power of a dedicated channel signal to be transmitted to a second communication terminal apparatus that exists in the vicinity of the first communication terminal apparatus.

22. (New) The base station apparatus according to claim 21, wherein said transmission power controller increases the transmission power of the dedicated channel signal during transmission of the shared channel signal.

23. (New) The base station apparatus according to claim 21, further comprising:

a notifier that notifies, prior to a start of transmission of the shared channel signal to the communication terminal apparatuses, the second communication terminal apparatus of the start, wherein:

said transmission power controller increases the transmission power of the dedicated channel signal in accordance with a request from the second communication terminal apparatus.

24. (New) A communication terminal apparatus, which performs radio communication with a base station apparatus that assigns a shared channel to a plurality of communication terminal apparatuses, the shared channel being shared by the plurality of communication terminal apparatuses, the communication terminal apparatus comprising:

a detector that detects a notification of a start of transmission of the shared channel to one of the plurality of

communication terminal apparatuses, the notification being performed by the base station apparatus; and

a transmitter that determines whether or not a reception quality of a dedicated channel signal deteriorates beyond a predetermined level due to the start of transmission of the shared channel signal, and transmits, when determining the reception quality deteriorates beyond the predetermined level, a signal requesting that a transmission power of the dedicated channel signal be increased.

25. (New) A radio communication method in a base station apparatus, which assigns a shared channel shared by a plurality of communication terminal apparatuses including a first communication terminal apparatus, the method comprising:

estimating a direction of arrival of a signal transmitted from each of the plurality communication terminal apparatuses;

determining, based on a difference between a direction of arrival of a signal from the first communication terminal apparatus and a direction of arrival of a signal from each communication terminal apparatus other than the first communication terminal apparatus of the plurality of communication terminal apparatuses, a communication terminal apparatus to which the shared channel is assigned after the first

communication terminal apparatus, to determine an order of communication terminal apparatuses to which the shared channel is assigned;

forming a directivity in the estimated direction of arrival in accordance with the determined order; and

transmitting a shared channel signal to each of the plurality of communication terminal apparatuses.

26. (New) The radio communication method according to claim 25, wherein a communication terminal apparatus of a direction of arrival having a smallest difference from a direction of arrival of a signal transmitted from the first communication terminal apparatus is determined as the communication terminal apparatus to which the shared channel is assigned next after the first communication terminal apparatus.

27. (New) A radio communication method in a base station apparatus, which assigns a shared channel shared by a plurality of communication terminal apparatuses including a first communication terminal apparatus, the method comprising:

estimating a direction of arrival of a signal transmitted from each of the plurality of communication terminal apparatuses;

determining, in accordance with a value calculated from a combination of a priority assigned in association with downlink channel quality and a value indicating the estimated direction of arrival, a communication terminal apparatus to which the shared channel is assigned after the first communication terminal apparatus, to determine an order of communication terminal apparatuses to which the shared channel is assigned;

forming a directivity in the estimated direction of arrival in accordance with the determined order; and

transmitting a shared channel signal to each of the plurality of communication terminal apparatuses.

28. (New) A radio communication method comprising:

estimating a direction of arrival of a signal transmitted from each of a plurality of communication terminal apparatuses;

determining an order of communication terminal apparatuses to which a shared channel is assigned, the shared channel is shared by the plurality of communication terminal apparatuses;

forming a directivity in a direction of arrival estimated for a signal transmitted from a first communication terminal apparatus of the plurality of communication terminal apparatuses; and



transmitting a dummy signal whose transmission power is increased gradually to a predetermined transmission power value of a shared channel signal, prior to a start of transmission of the shared channel signal to the first communication terminal apparatus in accordance with the determined order.

29. (New) A radio communication method comprising:

estimating a direction of arrival of a signal transmitted from each of a plurality of communication terminal apparatuses;

determining an order of communication terminal apparatuses to which a shared channel is assigned, the shared channel is shared by the plurality of communication terminal apparatuses;

forming a directivity in a direction of arrival estimated for a signal transmitted from a first communication terminal apparatus of the plurality of communication terminal apparatuses;

transmitting a shared channel signal to the first communication terminal apparatus; and

increasing a transmission power of a dedicated channel signal to be transmitted to a second communication terminal apparatus that exists in the vicinity of the first communication terminal apparatus.

30. (New) The radio communication method according to claim 29, wherein the transmission power of the dedicated channel signal is increased during transmission of the shared channel signal.

31. (New) The radio communication method according to claim 29, further comprising:

notifying, prior to a start of transmission of the shared channel signal to the first communication terminal apparatus, the second communication terminal apparatus of the start, wherein:

the transmission power of the dedicated channel signal is increased in accordance with a request from the second communication terminal apparatus.

32. (New) A radio communication method in a communication terminal apparatus, which performs radio communication with a base station apparatus that assigns a shared channel to a plurality of communication terminal apparatuses, the shared channel being shared by the plurality of communication terminal apparatuses, the method comprising:

detecting a notification of a start of transmission of the shared channel to one of the plurality of communication terminal

apparatuses, the notification being performed by the base station apparatus;

determining whether or not a reception quality of a dedicated channel signal deteriorates beyond a predetermined level due to the start of transmission of the shared channel signal; and

transmitting, when determining the reception quality deteriorates beyond the predetermined level, a signal requesting that a transmission power of the dedicated channel signal be increased.